



In the Matter Of

Restoring Internet Freedom

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) WC Docket No. 17-108

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**Written Ex Parte of the Benton Foundation**

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On May 17, 2017, the Federal Communications Commission ("Commission") adopted a Notice of Proposed Rulemaking (NPRM) entitled Restoring Internet Freedom. The Commission should consider the impact of net neutrality protections on the emerging Internet of Things.

**In *The End of Net Neutrality Could Shackle the Internet of Things***

(<https://www.wired.com/2017/06/end-net-neutrality-shackle-internet-things/>) Klint Finley writes, "Without net neutrality, the days when broadband companies and cell carriers could let traffic flow faster to one brand of phone or computer over another could be coming. And that's just the start." Finley continues, "Dismissing the [Open Internet] rules could be a big problem for the future of the Internet of Things, since companies like Comcast—which is already working on its own smart home platform—certainly have the motivation to create fast and slow lanes for particular gadgets and services. If your internet provider can decide which personal assistant or smart home gadgets you can or can't use, the broadband can dictate the winners and losers in the Internet of Things race. That wouldn't bode well for competition, innovation, or you."

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The Benton Foundation urges the Commission to consider emerging Internet-based devices and services before risking changes to the current court-upheld Open Internet rules.

Sincerely,

\_\_\_\_\_/s/\_\_\_\_

Kevin Taglang

Benton Foundation

June 9, 2017

**WIRED**

[HTTPS://WWW.WIRED.COM/2017/06/END-NET-NEUTRALITY-SHACKLE-INTERNET-THINGS/](https://www.wired.com/2017/06/end-net-neutrality-shackle-internet-things/)

- KLINT FINLEY
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# THE END OF NET NEUTRALITY COULD SHACKLE THE INTERNET OF THINGS

NET NEUTRALITY ISN'T the simplest concept to grasp. Explaining it works best via example: Net neutrality means, say, that internet providers like AT&T, Comcast, and Verizon, which also have their own television and streaming video services, can't create "slow lanes" for competing services. They can't gum up traffic from sites such as Netflix and Dish's SlingTV in favor of their own.

But net neutrality doesn't just cover streaming video. It also ensures that you can use the devices that you want. Under the current net neutrality rules, your internet provider can't stop you from connecting any laptop, tablet, smartphone, or WiFi router you want to your home network. Without net neutrality, the days when broadband companies and cell carriers could let traffic flow faster to one brand of phone or computer over another could be coming. And that's just the start.

With people connecting more and more devices, from voice-controlled personal assistants like Apple's forthcoming Home Pod to thermostats to cars, net neutrality becomes that much more important, even as the federal government moves to drop its own protections. Last month the Republican-led Federal Communications Commission started the process of overturning the agency's authority to actually enforce its net neutrality regulations. That means that unless either Congress or the courts intervene, net neutrality could soon be history.

Dismissing the rules could be a big problem for the future of the Internet of Things, since companies like Comcast—which is already working on its

own smart home platform—certainly have the motivation to create fast and slow lanes for particular gadgets and services. If your internet provider can decide which personal assistant or smart home gadgets you can or can't use, the broadband can dictate the winners and losers in the Internet of Things race. That wouldn't bode well for competition, innovation, or you.

## A Latent Question

At first glance, net neutrality might not seem likely to have much impact on the IoT. Much communication between IoT devices won't actually happen on the internet but on private networks. Compared to Netflix, the sensors, thermostats, and Echo cylinders that will make up much of the IoT transmit a paltry amount of data.

But former FCC chair Tom Wheeler, who ushered in the agency's net neutrality rules and now sits on the board of IoT software company Actility, points out that even if the majority of the data moves across a private network, there's opportunity for interference from a service provider if that data ever needs to touch the public internet.

For example, say you want to get an alert on your phone when the security alarm at your factory goes off. Data will need to travel across the internet to get you that info. "The reality is that I need to know that information with low latency," Wheeler says. In other words, you need to hear that alert in seconds—preferably milliseconds—not minutes or hours. "Latency, as computers are talking to computers, becomes a very important thing. The question becomes whether there will be different levels of service, will there be paid prioritization?"

See Pike, founder and CEO of the "smart apartment" company Iotas, agrees that the loss of net neutrality could end up being a big deal even for companies that are moving relatively small amounts of data. "Even though IoT devices might have smaller data packets, their usefulness is to be able to do real-time monitoring and analysis. If they are throttled, then it negates the value of IoT devices," she says.

Today the Internet of Things is still nascent. Yes, many and perhaps most IoT products are insecure, frivolous, poorly made, or all three. But the IoT stands poised to improve our health, save energy and water, and boost crop yields around the world. The winners and losers in the race to deliver on these

promises remain to be seen. Without a level playing field, we may never see the true potential of a more connected world.

For example, imagine Comcast or Verizon partnering with a few select internet connected smoke detector companies and then delaying notifications from smoke detectors made by other companies. New companies could not meaningfully enter the market without partnering with these major internet service providers. After all, who wants a slow smoke detector? "The future could end up being controlled by four companies," Wheeler says. "That's why open networks are important."

Without the FCC's net neutrality rules, providers might also be free to force you to rent a cable modem or WiFi router the same way you already have to rent a cable box, or even to charge you for each computer, tablet, or IoT gadget you connect to the web. Instead of one flat fee for an internet connection that supports all your gadgets, you could end up having to manage multiple subscriptions,

This was a bigger concern in the early 2000s, when WiFi and broadband were fairly new, and it's hard to imagine home broadband companies trying to stop people from using their own modems or imposing per-device fees today. "It may affect a small number of people, but the people it affects know where to go to scream bloody murder about it," says Phillip Berenbroick of the consumer advocacy group Public Knowledge.

But given how much the pay TV industry has fought rules that would have allowed consumers to ditch their cable boxes, a pay-per-device dystopia is certainly not out of the question.

The broadband industry says you have nothing to worry about. Comcast, for example, told WIRED that it will follow basic net neutrality principles even if the rules are revoked, and even after its obligation to do so under the terms of its merger agreement with NBC Universal expire next year. "We won't block, slow down, or discriminate against lawful content," Comcast spokesperson Sena Fitzmaurice says. "We believe the best way to settle the regulatory and political ping pong that net neutrality has become is for Congress to pass legislation that will apply to all in the internet ecosystem."

It's nice that broadband providers are at least paying lip service to the idea of net neutrality. But with such an imbalance of power between users and corporate internet providers that face little to no competition in most markets,

such words are cold comfort. Enforceable protections trump trust. The future of the IoT—and the internet itself—may depend on them.